USER MANUAL
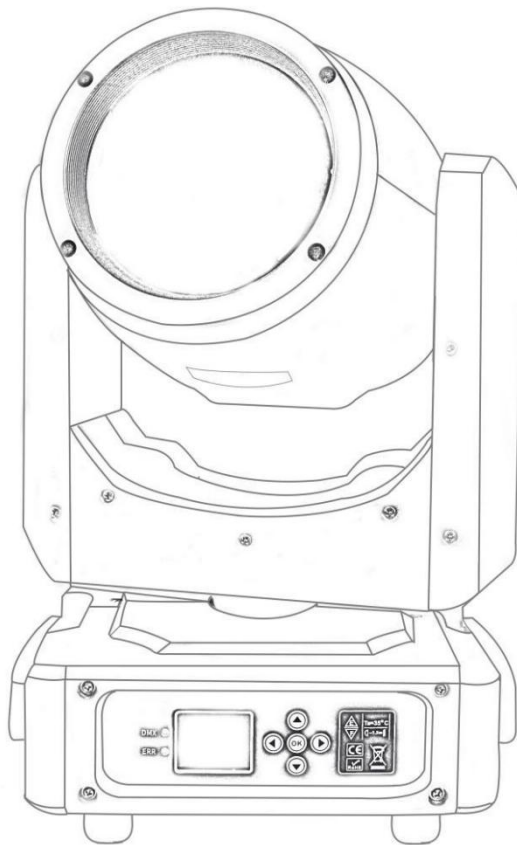
295W Moving Head Beam Light & LED Circle 24CH

CE

Please read over this manual before operation the light

Catalogue

1.Recautions with installation

1. Maintenance

- This light fixture should be kept dry and avoid working in wet conditions.
- Intermittent use will effectively extend the life of the luminaire.
- In order to obtain good ventilation and lighting effects, pay attention to cleaning the fan and fan net as well as the lens often.
- Do not rub the luminaires housing with organic solvents such as alcohol to avoid damage.

2. Declaration

This product was shipped out in good condition and complete package. All users shall strictly abide by the warnings and operating instructions stated above. Any damage caused by misuse is not covered by the warranty of the company. The Distributor shall not be responsible for the failure and problems caused by ignoring the operating manual.

This manual is subject to technical changes without prior notice.

3. Product Notes

- In order to ensure the service life of the product, the product should not be placed in a damp or leaking place, and should not work in an environment where the temperature exceeds 60 degrees
- Do not place this product in a place that is easy to loose or shake.
- In order to avoid the danger of electric shock, please consult a professional for maintenance of this product.
- When the lamp is used, the power supply voltage change should not exceed ±10%, the voltage is too high, will shorten the life of the lamp, the voltage is too low, it will affect the light color of the lamp.
- After the power off, it takes 20 minutes to use the lamp to cool down fully before it can be used again.
- In order to ensure the normal use of this product, please read this instruction carefully.
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4. Product Description

- Light source power: 5500W;
- Power supply: high efficiency and reliable switching power supply;
- Color disk: a color disk, each color disk is composed of 13 color plates + white light;
- Pattern tray: 15 pattern effects;
- Beam Angle adjustable range;
- Lens group optical system, electric focus, beam Angle 3.8°-45° linear adjustable;
- Horizontal 540°, resolution 8Bit/16Bit;
- Vertical 270°, resolution 8Bit/16Bit;
- Overheat protection;
- Control mode: DMX512/ master-slave/automatic;
- Protection level: IP20;

5. Signal wire connection (DMX)

Use an RS-485 cable that meets specifications: shielded, 120ohm characteristic impedance, 22-24 AWG, low capacitance react-resistance. Do not use microphone cables or cables with different specified characteristics. Connections to terminals must be made using a 3 or 5 pin XLR type male/maternal connector. A 120ohm impedance matching resistor (minimum 1/4 W) must be inserted between terminals 2 and 3 of the terminal plug.

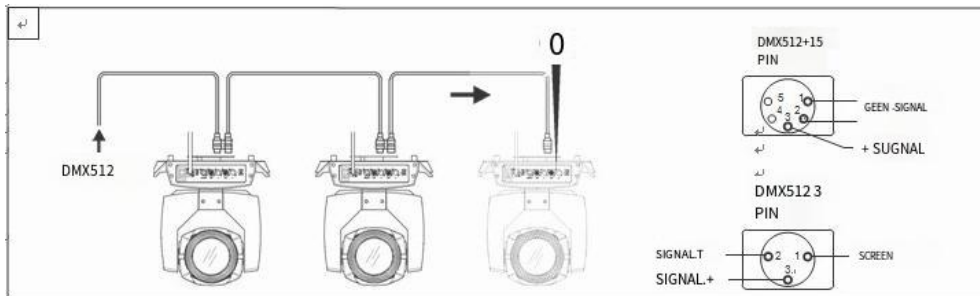Important: The wires must not touch each other or the metal housing.

Figure 1 Schematic diagram of DMX signal wire connection

6. Luminaire installation

Luminaires can be placed horizontally, hung diagonally, and hung upside down. Be sure to pay attention to the installation method when slant hanging and upside down.

As shown in Figure 2, before positioning the lamp, to ensure the stability of the installation site, in the reverse hanging installation, must ensure that the lamp does not fall down on the support frame, need to use the safety rope through the support frame and the lamp handle for auxiliary hanging to ensure safety. Prevent the luminaire from falling and sliding.

During the installation and debugging of the lamps, pedestrians are forbidden to pass under the lamps. Regularly check whether the safety rope is worn and whether the hook screws are loose.

If the hanging installation is not stable, resulting in the fall of the lamp and all the consequences, our company does not assume any responsibility.
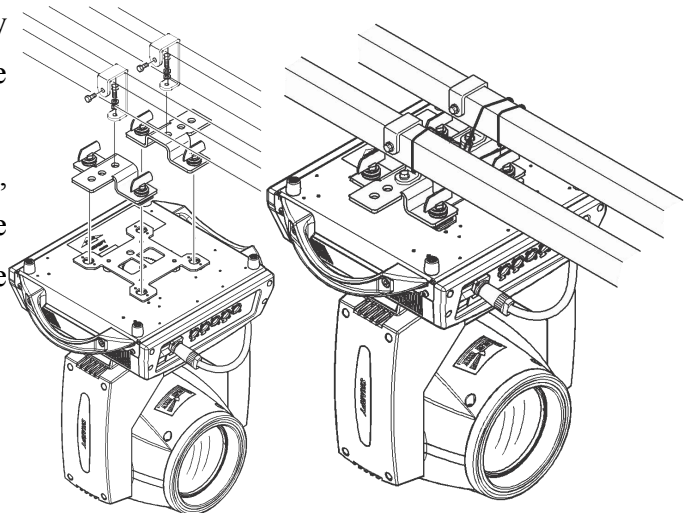

Figure 2 Schematic diagram of the lamp hanging upside down

2.Panel operation

I、Key instructions

LED display

DMX signal lamp

Error Light

001

Right Key

Enter Key

Left Key

The Key

The function of the left and right keys is the same:return to the previous interface

Up、down keys:Select、edit

OK Key:Perform function,start edit, exit edit
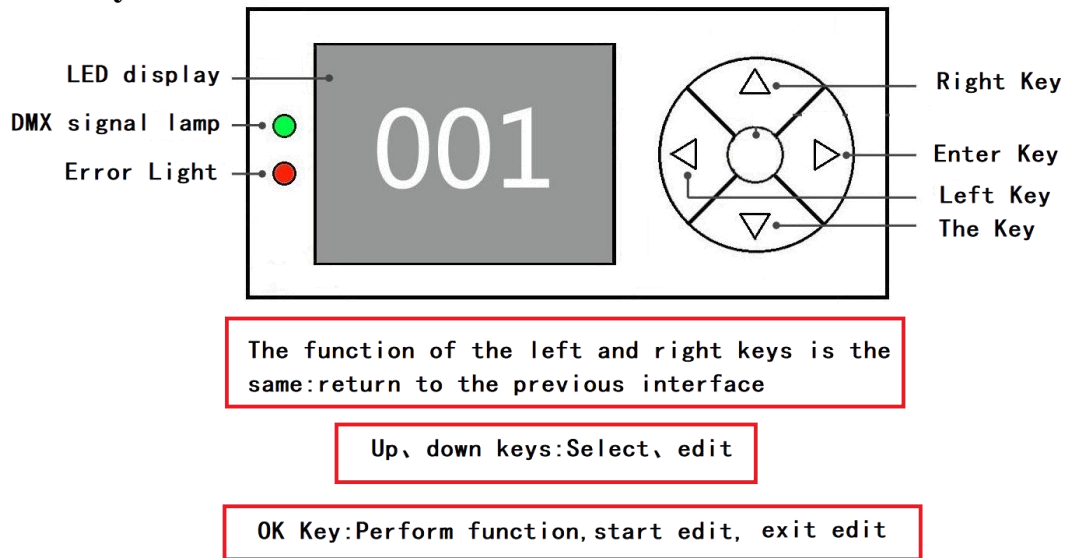
FIG. 3 Description of panel keys

The following takes "Modify DMX address code" as an example to describe the use of keys:

1. if the current is not the main interface, press the "left" key (one or more times) to return to the main interface.

2. in the home screen, press the "up" key or "down" key to select the "Settings" button

3. Press the "OK" key to enter the "Settings" interface.

4. in the "Settings" interface, press the "up" key or "down" key to select "DMX address".

5. press the "OK" key to enter the editing state.

6. press the "up" key or "down" key to modify the DMX address code.

7. press the "OK" key to exit the editing state

II、Operations

Chinese and English switching

Screen reversal

Temperature display

EN

08T

024

001

Manual

Settings

System

Figure 4 Schematic illustration of the main menu description

1. Manual

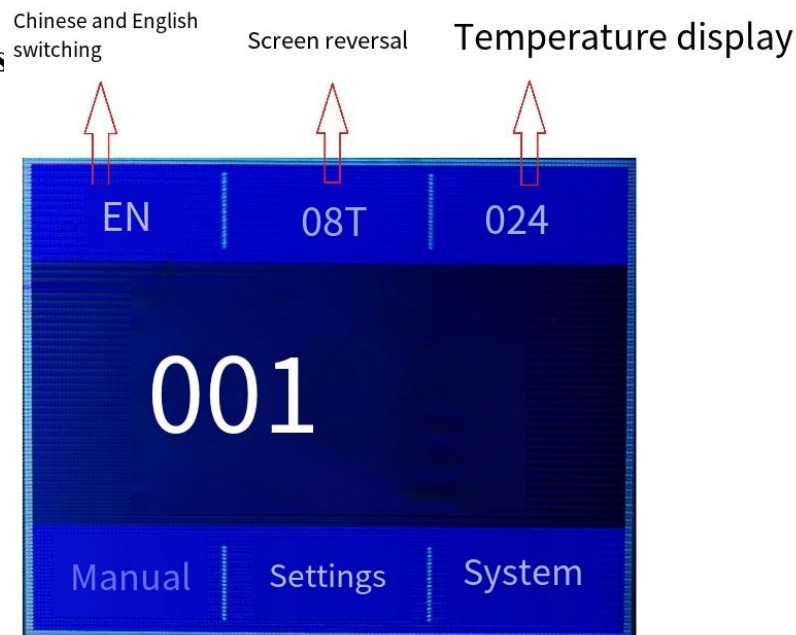This interface is used to control the current lamp while automatically entering the host state (does not receive DMX signal, sends DMX signal to the bus to the slave machine).

The manual menu will display 16 channels or 20 channels according to the standard 16 channel or extended 20 channel mode set in the Settings menu.

Options		Instructions
1CH. Color tray	0 ~ 255	Press "OK" to enter the editing state. At this time, the hundreds digit is selected, and press the "up" and "down" keys to change the channel value. Press the "OK" key again to select the tens edit. Press "OK" again to select the ones edit. Press again to exit the editing state.
...	0 ~ 255	
15CH.XY speed	0 ~ 255	
16CH. Reset		Press "OK" to see the confirmation dialog box, press "OK" again to enter the reset interface, all motors reset
16CH. Lamp control	open	
	close	
17CH. Reserve	0 ~ 255	Displayed when the channel mode is "Extend CH20"
18CH. Color Wheel Speed	0 ~ 255	Displayed when the channel mode is "Extend CH20"
19CH. Dimming - Prism - Atomization speed	0 ~ 255	Displayed when the channel mode is "Extend CH20"
20CH. Pattern Disk speed	0 ~ 255	Displayed when the channel mode is "Extend CH20"

2. Settings

Options		Instructions
Running mode	DMX	Slave state: Receives DMX signals from the console or host
	Bootleg 1	Host state: self-drive and send DMX signal to slave machine
	Natural Walk 2	
	Random	
	Voice Activated	
DMX address	1-512	Press "OK" to enter the editing state. At this time, the hundreds digit is selected, and press the "up" and "down" keys to change the address code. Press the "OK" key again to select the tens edit. Press "OK" again to select the ones edit. Press again to exit the editing state
Channel Mode	Standard 16CH	Standard 16 channel mode, channels 17 to 20 are not valid

	Expand 20CH	Expanded 20 channel mode, channel 17 to 20 control speed (see channel table)
X Reversal	Off	
	On	
Y Reversal	Off	
	On	
XY swap	Off	
	On	Channel to swap XY axes (incl. trims)
XY encoder	On	Use an encoder (optocoupler) to judge out of step and automatically correct the position
	Off	Correct position without using an encoder (optocoupler)
DMX signal	Hold	Continue running in its original state
	Clear	Turn the motor back and stop running
Turn on bright bubble	Off	Reset directly after powering on, no light bulb (need to manually light bubbles with menu or console)
	On	Automatically light the bubble after power on, and wait for the lamp to successfully light up before reset
The color wheel changes linearly	On	The color wheel changes linearly
	Off	Color wheel nonlinear change, half-color change
Restore default Settings		Press "OK" to see the confirmation dialog box, press "OK" again to restore the default Settings

3. System

Options		Instructions
DIS		Display board software version
MT		Motor board software version
Reset Calibration	X-axis calibration	After entering the sub-interface, the reset position of the motor such as X axis and Y axis can be adjusted to make up for the error on the hardware installation. The adjustment range is -128~+127, and +0 indicates no adjustment.
	Y-axis calibration	
	Color Calibration	
	Pattern Calibration	
	Focusing Calibration	
	Dimming Calibration	
	Prism 1 Calibration	
	Prism 2 Calibration	
	Frost Calibration	
Sensor monitoring	X-axis Hall	0 when magnetic is detected, 1 otherwise
	Y-axis hall	0 when magnetic is detected, 1 otherwise
	Color wheel Hall	0 when magnetic is detected, 1 otherwise
	Gobo disk Hall	0 when magnetic is detected, 1 otherwise

	Focus Hall	0 when magnetic is detected, 1 otherwise
	Prism 1 Hall	0 when magnetic is detected, 1 otherwise
	Prism 2 Hall	0 when magnetic is detected, 1 otherwise
	X-axis encodes disk status	2 digits, each corresponding to a photoelectric switch in the code disc
	Y-axis coding disk status	2 digits, each corresponding to a photoelectric switch in the coding disc
	X-axis encoding disk step value	When traveling in the forward direction, the step value should increase, and when traveling in the reverse direction, the step value should decrease. The number should be normal every time you reach the same point
	The Y-axis encodes the disk step value	When traveling in the forward direction, the step value should increase, and when traveling in the reverse direction, the step value should decrease. The number should be normal every time you reach the same point
System Error		If the red ERR indicator light shines, it indicates that the lamp is running incorrectly, and the details can be viewed from this sub-interface. After viewing, you can press the "Clear" button to clear the error record
DMX Monitoring		Real-time monitoring of console signals

Error information	Instructions
MT board connection failed	Motor board not responding. There is a problem with the serial communication line connecting the display board to the motor board, or there is a problem with the motor board.
X-axis reset failed	There is a problem with the X-axis photoelectric switch, or the X-axis motor or motor board
Y-axis reset failed	Y-axis photoelectric switch, or Y-axis motor or motor board problem
X-axis Hall error	X-axis Hall, or a problem with the motor board
Y-axis Hall error	Y-axis Hall, or a problem with the motor board
Color disk reset failed	Color disk Hall, or there is a problem with the color disk motor
The pattern plate failed to reset	Pattern plate Hall, or pattern plate motor has a problem
The focus reset failed	Focusing Hall, or a problem with the focusing motor
Bulb control failure	Failure to light or extinguish bubbles, lamplighter or bulb problem

4. Channel Description

CH	Features	CH	Effects
1	Color	000-004.	White light
		005-009	White light + Color 1
		010-014	Color 1
		015-019	Color 1+ Color 2
		020-024	Color 2
		025-029	Color 2+ Color 3
		030-034	Color 3
		035-039	Color 3+ Color 4
		040-044	Color 4
		045-049	Color 4+ Color 5
		050-054	Color 5
		055-059	Color 5+ Color 6
		060-064	Color 6
		065-069	Color 6+ Color 7
		070-074	Color 7
		075-079	Color 7+ Color 8
		080-084	Color 8
		085-089	Color 8+ Color 9
		090-094	Color 9
		095-099	Color 9+ Color 10
		100-104	Color 10
		105-109	Color 10+ Color 11
		110-114	Color 11
		115-119	Color 11+ Color 12
		120-124	Color 12
		125-129	Color 12+ Color 13
		130-134	Color 13
		135-139	Color 13+ Color 14
		140-144	Color 14+ White light
		145-191.	Positive flowing water (from fast to slow)
		192-255	Backward flow (slow to fast)
2	Shutter	000-003.	Lightgate closed
		004-250.	Slow stroboscopic to fast stroboscopic
		251-255.	Light gate on → (controlled by dimmer channel)
3	Dimming	000-255.	Dark to light
4	Gobo	000-004	Gobo 1
		005-009	Gobo 2
		010-014	Gobo 3
		015-019	Gobo 4
		020-024	Gobo 5
		025-029	Gobo 6

		030-034	Gobo 7
		035-039	Gobo 8
		040-044	Gobo 9
		045-049	Gobo 10
		050-054	Gobo 11
		055-059	Gobo 12
		060-064	Gobo 13
		065-069	Gobo 14
		070-074	Gobo 15
		075-079	Gobo 1 Shake(from slow to fast)
		080-084	Gobo 2 Shake(from slow to fast)
		085-089	Gobo 3 Shake(from slow to fast)
		090-094	Gobo 4 Shake(from slow to fast)
		095-099	Gobo 5 Shake(from slow to fast)
		100-104	Gobo 6 Shake(from slow to fast)
		105-109	Gobo 7 Shake(from slow to fast)
		110-114	Gobo 8 Shake(from slow to fast)
		115-119	Gobo 9 Shake(from slow to fast)
		120-124	Gobo 10 Shake(from slow to fast)
		125-129	Gobo 11 Shake(from slow to fast)
		130-134	Gobo 12 Shake(from slow to fast)
		135-139	Gobo 13 Shake(from slow to fast)
		140-144	Gobo 14 Shake(from slow to fast)
		145-149	Gobo 15 Shake(from slow to fast)
		150-197	Forward flowing water (from fast to slow)
		198-255	Backward flow (slow to fast)
5	Prism	000-127. 128-255.	None Prism cut in
6	Prism Rotation	000-127. 128-190. 191-192. 193-255.	Prism Angle adjustment Reverse rotation (from fast to slow) Stop Forward rotation (slow to fast)
7	Macros	000-255.	Macros
8	Frost	000-127 128-255.	None Frost cut in
9	Focus	000-255.	Gobo clarity from far to near
10	X	000-255.	Horizontal 540 degree scan
11	X Fine	000-255.	Horizontal 1.2 degree fine tuning
12	Y	000-255.	Vertical 270 degree scan
13	X Fine	000-255.	Horizontal 1.2 degree fine tuning
14	XY Speed	000-255.	Speed from fast to slow
15	LED_Dimming	000-255	...
16	LED_Shutter	000-255	...
17	LED_Red	000-255	...

18	LED-Green	000-255	...	
19	LED_Blue	000-255	...	
20	LED_Color Macro	000-255	...	
21	LED_Scene	000-255	...	
22	LED_Scene Speed	000-255	...	
23	Reset	000-025.	None	
		026-076.	Reset Effect	
		077-127.	Reset XY	
		251-255.	Reset All	
24	Lamp	000-099.	None	
		100-105.	Lamp Off	
		200-205.	Lamp On	

5. Common troubleshooting

The lamp contains microcomputer circuit board, high voltage power supply and other professional parts, for your safety and product life, non-professionals do not disassemble the lamp and related accessories without authorization.

1. The light bulb is not bright

Possible causes: The bulb is not completely cooled, or the bulb reaches the end of its life, treat as follows:

● Due to abnormal operation, the bulb is not completely cooled, the lamp body should be cooled for more than 10 minutes, so that its interior is completely restored to the normal state, and then start the power supply again;

● Check whether the lamp has reached the service life, should be replaced with a new bulb;

● Check whether the light bulb and the lamp line leak, fall off or poor contact;

● Replace the lamp with a new one.

2. The beam appears dull

Possible causes: The lamp has been used for a long time or the light path is not clean, treat as follows:

● Check whether the bulb has reached its service life and should be replaced with a new bulb;

● Check whether the optical parts or light bulbs are clean, whether there is dust accumulated on the optical devices such as light bulbs, it is necessary to regularly clean and maintain the light bulbs and components in the lamp.

3. Pattern projection fuzzy

● Check that the electronic focus channel value is appropriate for the current projection distance.

4. The light fixture works intermittently

Can cause: The internal line enters the protection state, deal with as follows:

● Check whether the fan is running normally or whether it is dirty, causing the internal temperature of the lamp to rise;

- Check whether the internal temperature control switch is in the closed state;
- Check that the bulb has reached the end of its useful life and replace it with a new bulb.

  5. The light fixture does not accept control from the console after normal reset

  Possible cause: The signal cable is faulty or the lamp parameter Settings are abnormal. The solution is as follows:

- Check the start address code and check the connection of the DMX signal cable (whether the signal cable is in good condition and whether the nodule connection is loose);
- Add signal amplifier, add 120 ohm terminal resistor;

  6. Luminaire can not start

  Can cause: The power line is bad, the treatment is as follows:

- Check whether the insurance on the power input socket is blown and replace the insurance;
- Lamps in long distance transportation due to vibration caused by poor line contact
- Check the input power supply, computer board and other connector devices.

6. Precautions for use

- Check whether the local power supply meets the requirements of the rated voltage of the product, and the leakage protector and overcurrent protector meet the requirements of the load;
- Do not use the power line whose insulation layer has been damaged, and do not connect the power line to other wires;
- The lamp is used in strong wind refrigeration, easy to accumulate dust, must be cleaned once a month, especially the heat sink, otherwise it will be blocked by dust, resulting in poor heat dissipation, making the lamp abnormal.
- When installing the lamps, the fixing screws must be tightened, and with a safety cable, and regular inspection;
- When the lamp is installed and positioned, any point on the surface of the lamp and any easily burned explosive material, maintain a minimum distance of 10 meters, and the distance from the irradiation is 2.5 meters. Please do not install the lamp directly on the surface of combustible material;
- The continuous working time of the lamp is recommended not to exceed 10 hours, and the continuous start of the lamp interval time should not be less than 10 minutes, otherwise it will not trigger normally because the lamp overheat protection;
- Use the on-off valve closing time should not exceed 5 minutes, if you need to close the light for a long time, you should use the console (lamp control channel) to close the lamp gun;
- In order to ensure that multiple lamps better comply with the scene effect, lamps should not always be in the current scene, that is, start the next scene action, it is best not to exceed 3 minutes in this state, to ensure that multiple lamps can run synchronically.
- In the process of use, if the lamps are abnormal, the use of lamps should be stopped in time to prevent other failures;